

WHAT IS CLAIMED IS:

1. An apparatus for detecting a scene change in a compressed moving-picture comprising:

5 an image structure judging portion for judging an image structure of an inputted compressed moving-picture;

a feature quantity extracting portion for extracting a feature quantity based on top and bottom double data in vertical direction of an image with respect to a field structure image when a judgment result of the image structure judging portion is a frame structure image;

10 a storage area for storing data extracted by the feature quantity extracting portion;

an extracted data comparing portion for comparing the extracted data and calculating a quantity of variation of a picture; and

15 a scene change judging portion for judging a scene change by the use of the quantity of variation calculated by the extracted data comparing portion.

2. An apparatus for detecting a scene change in a compressed moving-picture comprising:

20 a feature quantity extracting portion for extracting a feature quantity based on block data for one block independently of an image structure of an inputted compressed moving-picture;

a storage area for storing block data extracted by the feature quantity extracting portion;

an extracted data comparing portion for comparing a feature quantity by the use of double block data in vertical direction of an image with respect to a field

structure image when an image from which a feature quantity has been extracted is a frame structure image; and

a scene change judging portion for judging a scene change by the use of the quantity of variation calculated by the extracted data comparing portion.

5

~~3.~~ An apparatus for detecting a scene change in a compressed moving-picture comprising:

a field DCT encoding block number counting portion for counting a number of blocks that have undergone field DCT encoding when an image is a frame structure image; and

10

a scene change judging portion for comparing the number of blocks with a threshold and judging a scene change that exists between fields.

~~4.~~ An apparatus for detecting a scene change in a compressed moving-picture comprising:

a scene change judging portion for judging a scene change; and

15

a scene change interval retrieving portion for retrieving scene changes that exist at a start point and an end point of a specified particular interval among scene changes detected by the scene change judging portion.

20

5. An apparatus for detecting a scene change in a compressed moving-picture as set forth in Claim 1, wherein a threshold determined on a reference of a maximum quantity of variation of an image is included in thresholds that the scene change judging portion uses as a criterion of a scene change.

25

6. An apparatus for detecting a scene change in a compressed moving-picture as set forth in Claim 2, wherein a threshold determined on the reference of a maximum quantity of variation of an image is included in thresholds that the scene change judging portion uses as a criterion of a scene change.

7. An apparatus for detecting a scene change in a compressed moving-picture as set forth in Claim 3, wherein a threshold determined on the basis of a maximum quantity of variation of an image is included in thresholds that the scene change judging portion uses as a criterion of a scene change.

5 ~~8.~~ The apparatus for detecting a scene change in a compressed moving-picture as set forth in Claim 4, wherein a threshold determined on the basis of a maximum quantity of variation of an image is included in thresholds that the scene change judging portion uses as a criterion of a scene change.

10 ~~9.~~ A method of detecting a scene change in a compressed moving-picture comprising:

inputting a compressed moving-picture in which field structure images and frame structure images exist together; and

detecting a scene change in the inputted compressed moving-picture.

15 ~~10.~~ A method of detecting a scene change in a compressed moving-picture comprising:

judging an image structure of an inputted compressed moving-picture;

extracting a feature quantity based on top and bottom double data in vertical direction of an image with respect to a field structure image when a judgment result of the image structure judging step is a frame structure image;

20 storing data extracted in the feature quantity extracting step;

comparing extracted block data and calculating a quantity of variation of a picture; and

judging a scene change using said quantity of variation.

25 ~~11.~~ A method of detecting a scene change in a compressed moving-picture comprising:

2025 RELEASE UNDER E.O. 14176

extracting a feature quantity based on block data for one block independently of an image structure of an inputted compressed moving-picture; storing said block data;

comparing a feature quantity by the use of double block data in a vertical direction of an image with respect to a field structure image when an image from which a feature quantity has been extracted is a frame structure image; and judging a scene change using said quantity of variation.

12. A method of detecting a scene change in a compressed moving-picture comprising:

10 counting a number of blocks that have undergone field DCT encoding when an image is a frame structure image; and

comparing the number of blocks with a threshold and judging a scene change that exists between fields.

13. A method of detecting a scene change in a compressed moving-picture comprising:

detecting a scene change; and

retrieving scene changes that exist only at a start point and an end point of a specified particular interval.

14. A method for detecting a scene change in recording medium that computer-readably records a program containing a compressed moving-picture, comprising:

judging an image structure of an inputted compressed moving-picture;

extracting a feature quantity based on top and bottom double data in vertical direction of an image with respect to a field structure image when a judgment result of the image structure judging step is a frame structure image;

25 storing data extracted by the feature quantity extracting step;

comparing the extracted data and calculating a quantity of variation of a picture; and

judging a scene change when the quantity of variation exceeds a threshold value.

5 ~~15.~~ A method for operating a recording medium that computer-readably records a program for detecting a scene change in a compressed moving-picture, the program comprising:

extracting a feature quantity based on block data for one block independently of an image structure of an inputted compressed moving-picture;

10 storing block data extracted by the feature quantity extracting step;

comparing a feature quantity by the use of double block data in vertical direction of an image with respect to a field structure image when an image from which a feature quantity has been extracted is a frame structure image; and

15 judging a scene change based on an amount of variation calculated by the extracted data comparing step.

~~16.~~ A method for operating a recording medium that computer-readably records a program for detecting a scene change in a compressed moving-picture, the program comprising:

20 counting a number of blocks that have undergone field DCT encoding when an image is a frame structure image; and

comparing the number of blocks with a threshold to detect a scene change that exists between fields.

25 ~~17.~~ A method for operating a recording medium that computer-readably records a program for detecting a scene change in a compressed moving-picture, the program comprising:

judging a scene change; and

retrieving scene changes that exist at a start point and an end point of a specified particular interval among scene changes detected by the scene change judging step.